circumferentially constricted;

said inflatable cell having a circumference of $N\pi r$ when said cell is deflated and a circumference of $2Nr$ when said cell is inflated, where N is the number of intra-cell compartments in said cell, and where r is the cross-sectional radius of each compartment when inflated, so as to provide for circumferential constriction.

43. The device of claim 42, wherein the fractional decrease in the circumference upon inflation is 0.36.

44. The device of claim 42, wherein the bond comprises a weldment.

45. The device of claim 42, wherein adjacent intra-cell compartments are contiguous.

46. The device of claim 42, wherein the perforations are located adjacent the perimetric cell bond.

47. The device of claim 42, wherein the perforations are located between compartmental bonds extending from the upper and lower perimetric bonds.

48. The device of claim 42, further comprising a fluid inlet to provide for inflation and deflation of the cell.

49. The device of claim 42, further comprising inflating means for intermittently inflating said inflatable cell.

50. The device of claim 42, further comprising:

inflating means for intermittently inflating said inflatable cell; and

control means for determining the temporo-spatial regime of cell inflation.

51. The device of claim 42, further comprising control means for determining the

temporo-spatial regime of cell inflation.

52. A device for applying pressure to a body limb having a primary axis comprising:

an inflatable cell, said inflatable cell including at least two intra-cell compartments; said intra-cell compartments being confluent to allow for confluent air flow between adjacent intra-cell compartments within said cell, adjacent intra-cell compartments being spatially fixed relative to each other, such that upon inflation of said cell, said cell becomes circumferentially constricted;

said inflatable cell having a circumference of $N\pi r$ when said cell is deflated and a circumference of $2Nr$ when said cell is inflated, where N is the number of intra-cell compartments in said cell, and where r is the cross-sectional radius of each compartment when inflated, so as to provide for circumferential constriction.

53. The device of claim 52, wherein the fractional decrease in the circumference upon inflation is 0.36.

54. The device of claim 52, further comprising a fluid inlet to provide for inflation and deflation of the cell.

55. The device of claim 52, further comprising inflating means for intermittently inflating said inflatable cell.

56. The device of claim 52, further comprising:

inflating means for intermittently inflating said inflatable cell; and

control means for determining the temporo-spatial regime of cell inflation.

57. The device of claim 52, further comprising control means for determining the temporo-spatial regime of cell inflation.

58. The device of claim 52, further comprising a portable hand-held pump unit for

intermittently inflating said inflatable cell via a conduit;

said portable hand-held pump unit including a control unit for determining a sequence of cell inflation and deflation.

59. The device of claim 58, wherein said portable hand-held pump unit is battery operated.

60. The device of claim 59, wherein said portable hand-held pump unit comprises a rechargeable battery.

61. The device of claim 58, wherein said portable hand-held pump unit comprises an air compressor.

62. The device of claim 58, wherein said conduit comprises a single tube for delivering fluid to said inflatable cell.

63. The device of claim 58, wherein said conduit comprises means for indicating to said control unit an appropriate inflation and deflation sequence.

64. The device of claim 58, wherein said inflatable cell comprises at least one self-operated valve.

65. An automatic portable ambulant system for applying pressure to a body limb comprising:

an inflatable cell, said inflatable cell including at least two intra-cell compartments; said intra-cell compartments being confluent, each compartment being elongated in a direction of the primary axis; and

said inflatable cell further including inner and outer shells of durable flexible material;

said inner and outer shells being bonded together about a perimetric cell bond;

said inner and outer shells being further bonded together along compartmental bonds within said perimetric cell bond to define each intra-cell compartment;

said perimetric cell bond including upper and lower perimetric cell bonds;

said compartmental bonds partly extending between said upper and lower perimetric cell bonds;

said compartmental bonds including perforations to allow for confluent air flow between adjacent intra-cell compartments within said cell, adjacent intra-cell compartments being spatially fixed relative to each other, such that upon inflation of said cell, said cell becomes circumferentially constricted;

said inflatable cell having a circumference of $N\pi r$ when said cell is deflated and a circumference of $2Nr$ when said cell is inflated, where N is the number of intra-cell compartments in said cell, and where r is the cross-sectional radius of each compartment when inflated, so as to provide for circumferential constriction;

a portable hand-held pump unit for intermittently inflating said inflatable cell via a conduit;

said portable hand-held pump unit including a control unit for determining a sequence of cell inflation and deflation.

66. The system of claim 65, wherein said portable hand-held pump unit is battery operated.

67. The system of claim 66, wherein said portable hand-held pump unit comprises a rechargeable battery.

69. The system of claim 66, wherein said portable hand-held pump unit comprises an air compressor.

70. The system of claim 66, wherein said conduit comprises a single tube for delivering fluid to said sleeve.

71. The system of claim 66, wherein said conduit comprises means for indicating to said control unit an appropriate inflation and deflation sequence.